

DSP-5, encoded by 1020 base pairs

1 GACGCGTGGC CATGTTGGAG GCTCCGGGCC CGAGTGATGG CTGCGAGCTC AGCAACCCCA
61 GCGCCAGCAG AGTCAGCTGT GCCGGGCAGA TGCTGGAAGT GCAGCCAGGA TTGTATTCG
121 GTGGGGCCGC GGCGTCGCG GAGCCAGATC ACCTGAGGGA AGCGGGCATC ACGGCCGTGC
181 TAACAGTGGA CTCGGAGGAG CCCAGCTTCA AGGCGGGGCC TGGGGTCGAG GATCTATGGC
241 GCCTCTTCGT GCCAGCGCTG GACAAACCCG AGACGGACCT ACTCAGCCAT CTGGACC GG
301 GCGTGGCCTT CATCGGTCA GCCCCGCGCTG AGGGCCGTGC GGTGTTGGTG CACTGTCA
361 CAGGAGTCAG TCGAAGTGTG GCCATAATAA CTGCTTTCT CATGAAGACT GACCAACTTC
421 CCTTGAAAAA AGCCTATGAA AAGCTCCAGA TTCTCAAACC AGAGGCTAAG ATGAATGAGG
481 GGTGAGTG GCAACTGAAA TTATACCAAGG CAATGGGATA CGAAGTGGAT ACCTCTAGTG
541 CAATTATATAA GCAATATCGT TTACAAAAGG TTACAGAGAA GTATCCAGAA TTGCAGAAATT
601 TACCTCAAGA ACTCTTGCT GTTGACCCAA CTACCGTTTC ACAAGGATTG AAAGATGAGG
661 TTCTCTACAA GTGTAGAAAG TGCAAGCGAT CATTATTCG AAGTTCTAGT ATTCTGGATC
721 ACCGTGAAGG AAGTGGACCT ATAGCCTTG CCCACAAGAG AATGACACCA TCTTCCATGC
781 TTACCACAGG GAGGCAAGCT CAATGTACAT CTTATTCAT TGAACCTGTA CAGTGGATGG
841 AATCTGCTTT GTGGGAGTG ATGGATGGAC AGCTCTTTG CCCAAATGC AGTGCAGAAGT
901 TGGGTTCCCTT CAACTGGTAT GGTGAACAGT GCTCTTGTGG TAGGTGGATA ACACCTGCTT
961 TTCAAATACA TAAGAATAGA GTGGATGAAA TGAAAATATT GCCTGTTTG GGATCACAAA
1021 CAGGAAAAAT ATGAACATGA TATTTATAG CTTGGGAAGA AACTTGCAGA TGATATGTGC
1081 TGCCTTGCT TCTTATCATT CATGGC

Alternate form of DSP-5, encoded by 897 base pairs

1 GACGCGTGGC CATGTTGGAG GCTCCGGGCG CGAGTGTAGG CTGCGAGCTC AGCAACCCCCA
61 GCGCCAGCAG AGTCAGCTGT GCCGGGCAGA TGCTGGAAGT GCAGCCAGGA TTGTATTTCG
121 GTGGGGCCGC GGCGCTCGCG GAGCCAGATC ACCTGAGGGG AGCGGGCATT ACGGCCGTGC
181 TAACAGTGGA CTCGGAGGAG CCCAGCTTCA AGGCGGGCC TGGGGTCGAG GATCTATGGC
241 GCCTCTCGT GCCAGCGCTG GACAAACCCG AGACGGACCT ACTCAGCCAT CTGGACCCTG
301 GCGTGGCCTT CATCGGTCA GCCCCGCGCTG AGGGCCGTGC GGTGTTGGTG CACTGTCATG
361 CAGGAGTCAG TCGAAGTGTG GCCATAATAA CTGCTTTCT CATGAAGACT GACCAACTTC
421 CCTTGAAAA AGCCTATGAA AAGCTCCAGA TTCTCAAACC AGAGGCTAAG ATGAATGAGG
481 GGTGGAGTG GCAACTGAAA TTATACCAGG CAATGGGATA CGAAGTGGAT ACCTCTAGTG
541 CAATTATCAA GCAATATCGT TTACAAAAGG TTACAGAGAA GTATCCAGAA TTGCAGAATT
601 TACCTCAAGA ACTCTTGCT GTTGACCCAA CTACCGTTTCA ACAAGGATTG AAAGATGAGG
661 TTCTCTACAA GTGTAGAAAG TGCAAGCGAT CATTATTCG AAGTTCTAGT ATTCTGGATC
721 ACCGTGAAGG AAGTGGACCT ATAGCCTTTG CCCACAAGAG AATGACACCA TCTTCATGC
781 TTACCACAGG GAGGCAAGCT CAATGTACAT CTTATTCAT TGAACCTGTA CAGTGGATGG
841 AATCTGCTTT GTTGGGAGTG ATGGATGGAC AGGTGAGAAC ACATTTTATT TTCTACAATT
901 TTATTTATG ATCTATATT TATTCTTCT TGCAATTAA GCTCTATTT AACTAGTGTG
961 TTGCTCCATT TCTTAATTTC TTATTTCTG ATGATTATAT CTTCTTGTG TAGATAA

Fig. 2

Title: DSP-5 DUAL-SPECIFICITY PHOSPHATASE
Inventor(s): Ralf M. Luche and Bo Wei Express Mail No. EV336597892US Docket No. 200125.413C1

DSP-5, predicted peptide sequence of 340 amino acids

MLEAPGPSDGCELSNPSASRVSCAGQMLEVQPGLYFGGAAAVAEPDHLREAGITAVLTVDSEEPSFKAGP
GVEDLWRLFVPALDKPETDLLSHLDRCVAFIGQARAEGRAVLVHCHAGVSRSAIITAFLMKTDQLPFEK
AYEKLQILKPEAKMNEGFEWQLKLYQAMGYEVDTSSAIYKQYRLQKVTEKYPELQNLQPQELFAVDPTTVS
QGLKDEVLYKCRKCRRSLFRSSSILDHREGSGPIAFAHKRMTPSSMLTTGRQAQCTSIFYIEPVQWMESAL
LGVMDGQLLCPKCSAKLGSFNWYGEQCSCGRWITPAFQIHKNRVDEMKILPVLGSGTGKI*

Fig. 3

Alternate form of DSP-5, predicted peptide sequence of 299 amino acids

MLEAPGPSDGCELSNPSASRVSCAGQMLEVQPGLYFGGAAAVAEPDHLREAGITAVLTVDSEEPSFKAGP
GVEDLWRLFVPALDKPETDLLSHLDRCVAFIGQARAEGRAVLVHCHAGVSRSAIITAFLMKTDQLPFEK
AYEKLQILKPEAKMNEGFEWQLKLYQAMGYEVDTSSAIYKQYRLQKVTEKYPELQNLQPQELFAVDPTTVS
QGLKDEVLYKCRKCRRSLFRSSSILDHREGSGPIAFAHKRMTPSSMLTTGRQAQCTSIFYIEPVQWMESAL
LGVMDGQVRTHFIFYNFIL*

Fig. 4

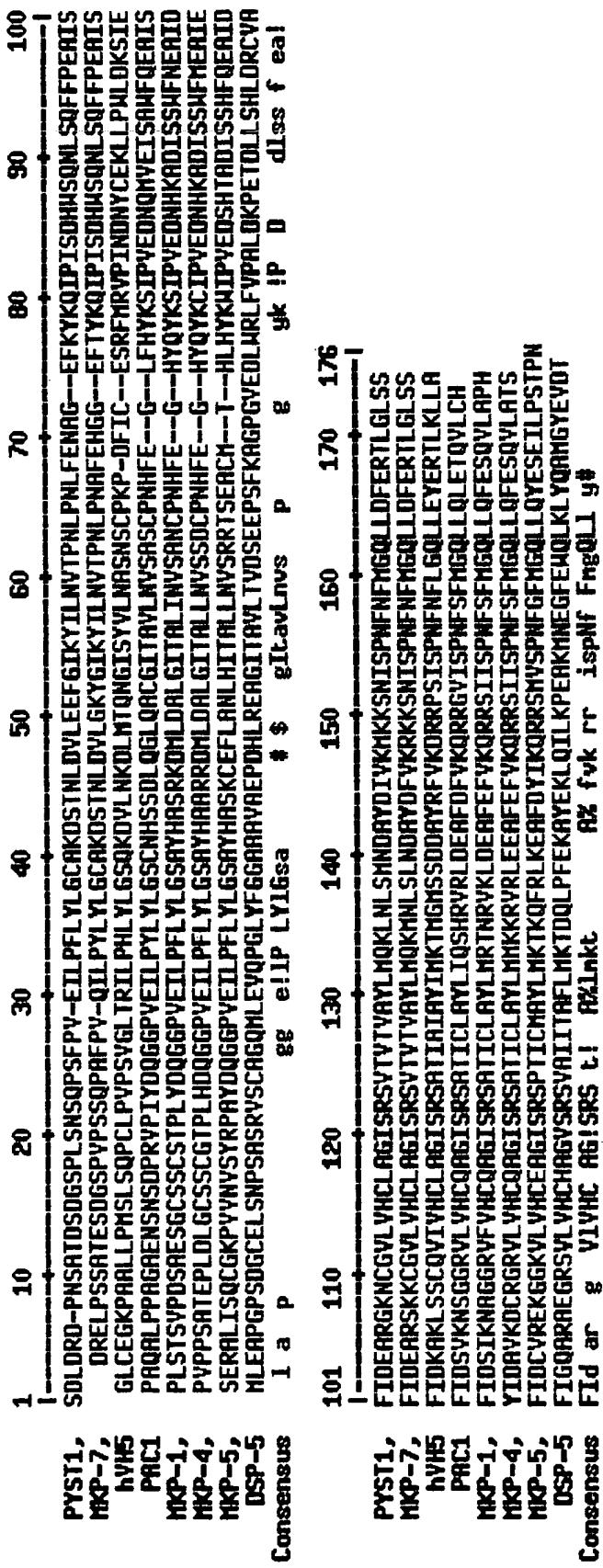


Fig. 5

DSP-5

- Northern blot analysis

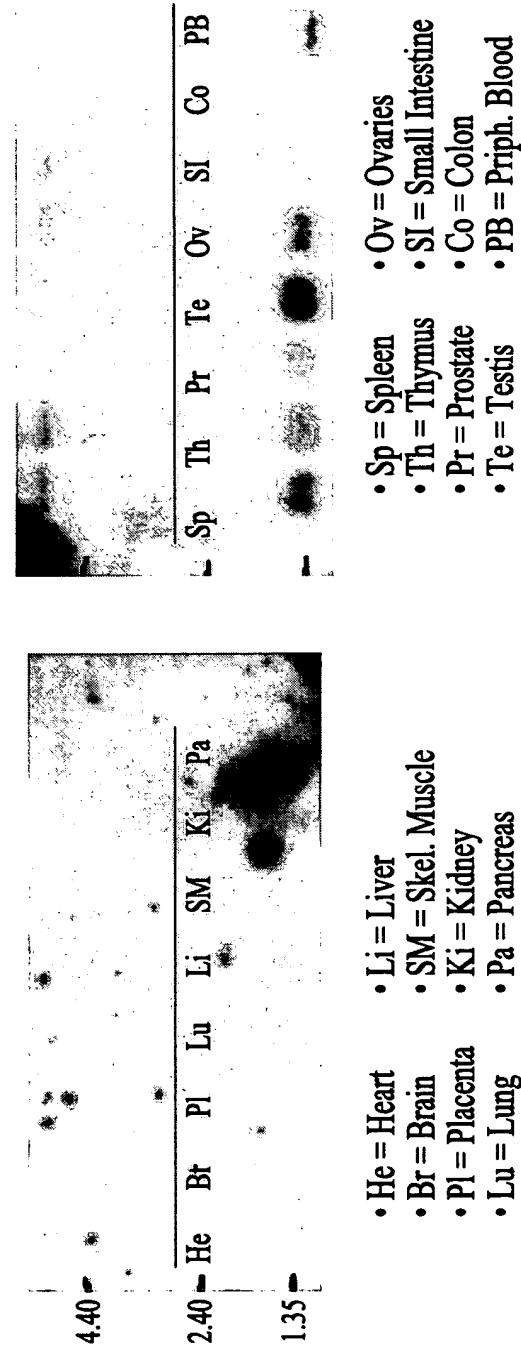


Fig. 6A

Fig. 6B